

THE URBAN DISTRICT COUNCIL OF
WATERLOO-WITH-SEAFORTH.

ANNUAL REPORTS

OF THE

Medical Officer of Health

AND OF THE


Sanitary Inspector

FOR THE YEAR 1900.

LIVERPOOL:

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Annual Report,

1900.

THE CHAIRMAN AND MEMBERS OF THE WATERLOO-WITH-SEAFORTH URBAN DISTRICT COUNCIL.

GENTLEMEN,

I have much pleasure in presenting you with this, my Twenty-seventh Annual Report, as to the Health and Sanitary Condition of the District during the past year. Appended you will find the Report of the Sanitary Inspector as to the work done by him for the prevention of the spread of disease.

INFECTIOUS DISEASES NOTIFIED.

Fifty-four cases of Diseases of an infectious nature were notified to me in the Waterloo Division of the District. These occurred in 43 houses. 40 were treated in their own homes, of which 3 died; 14 were removed to hospital, 3 cases proving fatal.

In the Seaforth Division 77 cases were notified from 63 houses; 48 were treated at home, of which 4 died; 29 were sent to hospital, none of which died.

Total, 131 cases in 106 houses, 43 of which were removed to hospital.

The following table shows the number of cases notified for the past eight years:—

1893	...	...	...	295
1894	...	...	...	283
1895	...	...	...	281
1896	...	...	...	200
1897	...	...	...	151
1898	...	...	...	214
1899	...	...	...	137
1900	...	...	...	131

It will be seen from this that this class of diseases is steadily diminishing in our District, owing no doubt to the strict sanitary precautions which are taken, such as the constant flushing of sewers and disinfection of premises; also the prompt removal of patients to hospital when isolation of same was difficult to obtain.

HOSPITAL ACCOUNT.

Our relations with the Corporation of Bootle during the year have been fairly satisfactory, as only on one or two occasions we were not able to send in our cases on the day of application, in consequence of the beds being all occupied.

The expenditure connected therewith was as follows, viz.:—

Annual Contribution for Maintenance of Hospital...	£384	0	0
Cost of Maintenance of Patients	219	13	7
Total.....	£603	13	7

SMALLPOX.

Two cases of this disease were notified in Waterloo Division, of a very mild character, the source of infection being untraceable. One patient was removed to hospital; the other was treated at home. Every precaution was taken to prevent the further spread of the disease.

One case occurred in Seaforth Division, which was promptly removed to hospital, the bedding, &c., on which the patient slept being destroyed. The other inmates of the house were at once vaccinated, and all other precautions taken. The source of the disease in this case was also untraceable.

SCARLET FEVER.

Thirty-six cases of this disease occurred in 25 houses in Waterloo Division, 24 of which were treated at home, and 12 removed to hospital. Of the former 1 died, as against 3 in hospital.

In Seaforth 41 cases were notified from 27 houses. 22 were treated at home, none of which proved fatal; 19 were removed to hospital, none of which died. The number of cases in Seaforth Division would have been very light had not a slight epidemic of this disease occurred at the Barracks.

The total number of cases of this disease for the entire District was 77, in 52 houses, 31 being removed to hospital.

Number of Cases notified for the past eight years.

1893	...	...	...	137
1894	...	...	...	159
1895	...	...	...	162
1896	...	...	...	98
1897	...	...	...	73
1898	...	...	...	132
1899	...	...	...	78
1900	...	...	...	77

Average for the last five years, 90,

TYPHOID FEVER.

Seven cases of this disease were notified from the same number of houses in Waterloo Division. 6 remained at home for treatment, and 1 was removed to hospital. All these patients recovered.

In Seaforth Division 23 cases occurred in the same number of houses. 14 were treated at home, 3 of which died; 9 were removed to hospital, none of which died.

The total number of cases for the entire District was 30, occurring in the same number of houses scattered all over the District; no locality being to any notable extent the seat of a number of these cases. Ten cases of this disease were removed to hospital.

Number of Cases notified for the past eight years.

1893	...	...	...	69
1894	...	...	...	92
1895	...	...	...	69
1896	...	...	...	63
1897	...	...	...	38
1898	...	...	...	55
1899	...	...	...	26
1900	...	...	...	30

The average number for the last 5 years being 42.

DIPHTHERIA.

Three cases, occurring in 3 houses, were notified in Waterloo Division. They were all treated at home, and there were no deaths.

There were five cases in Seaforth Division in 5 houses. Four were treated at home, 1 death resulting; 1 was removed to hospital, which recovered.

Total, 8 cases, resulting in 1 death.

ERYSIPELAS.

Four cases were notified in Waterloo Division and 6 in Seaforth, none of which proved fatal.

PUERPERAL FEVER.

One case of this disease was notified in Waterloo Division, which proved fatal.

CONTINUED FEVER.

One case in Waterloo and 1 in Seaforth Division. Both recovered.

INSPECTION OF DISTRICT.

I have, in company with the Sanitary Inspector, systematically inspected each Division of the District during the year, and have reported any defects of an insanitary nature which have come under my notice in my Monthly Reports to the Health Committee.

SANITARY STATE OF THE DISTRICT GENERALLY AT THE END OF THE YEAR.

I have had a very small number of diseases of an Infectious nature notified to me during the latter three months of the year, and from my knowledge of the Sanitary state of the District, I think we may predict a further decrease in the number of infectious diseases.

VITAL STATISTICS.

ZYMOTIC DEATH RATE.

Under this class of disease there were registered in the entire District 41 deaths, giving a death-rate of 1·64. In the Waterloo Division 18 deaths occurred, giving a death-rate of 1·67. In Seaforth Division the number was 23, which shows a death-rate of 1·61.

During 1899, 51 deaths from this source were notified, a death-rate of 2·72.

The Deaths from these causes were as follows:—

	Under 5 years.		Over 5 years.	
Diphtheria	2	.....	0	
Membraneous Croup	1	.....	0	
Typhoid Fever	0	.....	3	
Measles	2	.....	0	
Whooping Cough.....	3	.....	0	
Diarrhœa and Dysentery	28	.....	2	

BIRTH RATE.

There were 575 births registered in the District, 284 males and 291 females, giving a birth-rate of 23·00. Of these 211 were in Waterloo Division, 106 being males and 105 females, a birth-rate of 19·58. In Seaforth Division the number was 364, 178 males and 186 females, showing a birth-rate of 25·58.

DEATH RATE.

The deaths registered during the year numbered 305, giving a total rate of mortality for the entire District of 12·20 per 1,000 of the estimated population.

Of these 125 were in Waterloo Division, giving a death-rate of 11·60, and 180 in Seaforth Division, a death-rate of 12·61.

In 1899 the deaths numbered 288, giving a death-rate of 12·05 per 1,000 of the estimated population.

TABLE I.

URBAN DISTRICT OF WATERLOO-WITH-SEAFORTH.
FOR WHOLE DISTRICT.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		DEATHS UNDER ONE YEAR OF AGE.		DEATHS AT ALL AGES. TOTAL.	
		Number.	Rate.	Number.	Rate per 1,000 Births registered.	Number.	Rate.*
1.	2.	3.	4.	5.	6.	7.	8.
1891	17,328	474	27·35	...	...	287	16·56
1892	18,304	487	26·60	52	106·77	235	12·84
1893	18,807	512	27·23	89	154·29	284	15·10
1894	19,471	564	28·96	55	97·51	213	10·83
1895	20,296	559	27·54	78	139·53	286	14·09
1896	21,119	547	25·90	77	140·76	302	14·30
1897	21,824	548	25·10	86	156·20	270	12·37
1898	23,058	603	26·15	96	159·20	285	12·36
1899	23,880	595	24·89	91	152·94	288	12·05
Averages for years 1891-1899.	20,354	543	26·18	69	108·65	272	13·26
1900	25,000	575	23·00	76	132·17	305	12·20

* Rates calculated per 1,000 of estimated Population

Area of District in acres (exclusive of area covered by water....740 acres.
Total Population at all ages, at census of 189117,328.
Average number of Persons per house ,, 5·37.

TABLE II.

URBAN DISTRICT OF WATERLOO-WITH-SEAFORTH.

Names of Localities.	WATERLOO.				SEAFORTH			
YEAR.	Population estimated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 Year.	Population estimated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 Year.
	<i>a.</i>	<i>b.</i>	<i>c.</i>	<i>d.</i>	<i>a.</i>	<i>b.</i>	<i>c.</i>	<i>d.</i>
1891	6,684	171	113	...	10,644	303	174	...
1892	7,143	144	80	...	11,161	343	155	...
1893	7,412	169	108	25	11,395	343	176	64
1894	7,955	200	85	18	11,516	364	128	37
1895	8,465	181	118	30	11,831	378	168	48
1896	9,076	202	115	18	12,043	345	187	59
1897	9,470	191	106	34	12,354	357	164	52
1898	10,039	228	107	22	13,019	357	178	74
1899	10,331	197	116	30	13,549	398	172	61
Averages of years 1891 to 1899.	8,508	187	105	25	11,945	354	166	56
1900	10,773	211	125	31	14,227	364	180	45

TABLE III.
URBAN DISTRICT OF WATERLOO-WITH-SEAFORTH.

CASES OF INFECTIOUS DISEASE NOTIFIED DURING
 THE YEAR 1900.

NOTIFIABLE DISEASE.	Cases Notified in whole District.							Total Cases Notified in each Locality.		No. of Cases removed to Hospital from each Locality.	
	At all Ages.	At Ages—Years.						1.	2.	1.	2.
		Un- der 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and up- wards	Waterloo.	Seaforth.	Waterloo.	Seaforth.
Small-pox	3	...	...	...	1	2	...	2	1	1	1
Diphtheria	8	1	1	6	...	...	...	3	5	...	1
Erysipelas	10	...	...	...	2	7	1	4	6	...	...
Scarlet fever	77	1	13	42	18	3	...	36	41	12	19
Enteric fever.....	30	...	1	6	7	16	...	7	23	1	9
Continued fever	2	...	...	...	1	1	...	1	1	...	...
Puerperal fever.....	1	...	...	...	...	1	...	1	...	...	...
Totals.....	131	2	15	54	29	30	1	54	77	14	30

TABLE IV.

URBAN DISTRICT OF WATERLOO-WITH-SEAFORTH.

CAUSES OF, AND AGES AT, DEATH DURING YEAR 1900.

CAUSES OF DEATH.	Deaths in whole District at subjoined Ages.							Deaths in Localities (at all Ages).	
	All Ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	Waterloo.	Seaforth.
Measles	2	2	...	...	...	...	...	1	1
Whooping-cough	3	1	2	...	...	...	...	1	2
Diphtheria and Membranous croup	3	...	3	...	...	...	...	2	1
Fever—Enteric	3	...	1	...	...	2	...	...	3
Epidemic influenza.....	3	...	...	...	1	...	2	3	...
Diarrhoea	15	9	6	...	...	...	...	7	8
Enteritis	15	10	3	...	...	2	...	7	8
Phthisis	24	...	1	...	3	17	3	11	13
Other tub'rcular diseases	8	4	2	1	...	1	...	1	7
Cancer, malignant disease	5	...	...	...	...	3	2	1	4
Bronchitis	26	7	4	...	...	10	5	14	12
Pneumonia	29	4	7	...	3	10	5	11	18
Pleurisy	5	...	...	...	...	3	2	4	1
Alcoholism, Cirrhosis of liver.....	12	...	...	...	...	10	2	3	9
Premature birth	6	6	...	...	...	...	...	2	4
Diseases and accidents of parturition.....	1	...	...	...	...	1	...	1	...
Heart diseases	24	...	...	...	2	16	6	12	12
Accidents	3	...	1	...	1	1	...	2	1
All other causes	118	31	7	4	6	40	30	42	76
All causes.....	305	74	37	5	16	116	57	125	180

Signed,

W. S. LIMRICK,
Medical Officer of Health.

January 29th, 1901.

Sanitary Inspector's Annual Report.

TOWN HALL, WATERLOO,

January, 1901.

TO THE CHAIRMAN AND MEMBERS
OF THE HEALTH COMMITTEE OF THE
URBAN DISTRICT COUNCIL OF
WATERLOO-WITH-SEAFORTH.

MR. CHAIRMAN AND GENTLEMEN,

I beg to submit my Annual Report as to the Sanitary Inspections made by me during the past year, together with particulars of nuisances abated and improvements effected thereby.

INSPECTION OF DISTRICT.

A systematic inspection of the District has been carried out, as far as possible, according to the requirements of Section 92 of the Public Health Act, 1875, so as to ascertain what nuisances exist calling for abatement.

In carrying out such inspection, the houses in 21 streets have been inspected, making the total number of inspections 1,142, which includes houses from which complaints were received, and in which infectious disease had occurred.

NOTICES SERVED, &c.

In consequence of the above inspections 433 preliminary notices have been served upon owners or occupiers to abate nuisances or carry out sanitary improvements, and in 77 instances nuisances were reported to the Committee, and legal notice ordered to be served; but it was found necessary to serve only 32 of such notices, the nuisance having been abated, or the work put in hand necessary for its abatement, between the time of the Committee and Council meetings.

It being necessary, in order to ensure the proper carrying out of such notices, to re-inspect the premises frequently, the number of such re-inspections made was 1,149; also 93 letters were written to owners calling their attention to notices, &c., overdue, and I have had frequent interviews in all parts of the District with owners, occupiers and contractors as to work required to be done.

SMOKE TESTING.

The smoke test has this year been made great use of, being applied to 212 drains, 38 being at houses in which Diphtheria and Typhoid Fever had occurred, 29 where intended occupiers desired to know the sanitary condition of the premises they were entering (such work being carried out for a small fee to cover cost of labour, &c., when the occupier receives a report as to the condition of premises, and recommendations for securing them to be in a proper sanitary condition, much good work being done in consequence of such testing), and 135 when examining drains, &c., under Section 41 of the Public Health Act, 1875, or special instructions received from the Committee.

The smoke test has again been applied to all new drains before being passed as sound.

DRAINS.

Eighty-three drains have been repaired or relaid, the majority of these being discovered with the aid of the smoke machine when testing after cases of diphtheria or typhoid fever. A number of such drains were connected direct to sewer without the intervention of a trap; in 19 instances have intercepting traps been fixed, and the heads of drains ventilated with 4in. shafts.

In two cases have the drains been removed from the cellars, and in 3 instances removed entirely from passing under the house.

Forty choked drains have been opened and cleansed, while 52 gullies have been fixed in lieu of defective gullies, Masons and iron D traps.

One manhole disconnecting chamber was built. These chambers are a great advantage to a system of drainage, as they provide for easy access at any time, either for cleansing, testing or other purposes.

CONVERSION OF PRIVIES INTO W.C's.

Nine privies have been converted into water-closets, thus reducing the number to a limited few, which cannot be avoided, owing to there being no sewer available within the prescribed distance.

It was not found necessary to serve statutory notices under Section 36 of the Public Health Act, 1875, for any of the above conversions, thus showing the willingness of the owners to abolish these insanitary receptacles.

WATER CLOSETS.

Five premises were discovered to be without closet accommodation, a portion of which has been provided, the remainder being in hand.

Four old pan and container closets have been abolished, and washdown w.c.'s substituted. This old dangerous type of closet is now a scarce article in the District, and I am not aware of any existing ones.

Forty-two new basins and traps have been substituted for defective ones, while 19 choked water-closets have been opened and cleansed. In five instances water-closet apartments were provided with proper light and ventilation, 53 water-closets have had the connections repaired and made sound, 32 closets have been provided with water for flushing purposes, while 13 separate cisterns were fixed, and in 22 cases the flushing apparatus has been put in order.

SOIL PIPES.

These have received considerable attention. Three soil pipes have been entirely removed from the centre of old houses, and the water-closets fixed against external walls; 26 soil pipes have been ventilated with 4-inch shafts, carried up to at least 2 feet above the eaves of the roof; 73 soil pipes were made sound, while 12 which were choked had obstructions removed.

WASTE PIPES, &c.

Sixty-eight untrapped or defective waste pipes have been trapped and made sound, while 8 overflow pipes from cisterns and 19 rainwater conductors were disconnected from soil pipes or drains. In 5 cases sinks were re-drained with stoneware pipes, and 4 salt-glazed stoneware sinks fixed.

HOUSES LET IN LODGINGS, &c.

During the year Bye-laws with respect to the registration of houses let in lodgings, &c., have been passed by the Council, and sanctioned by the Local Government Board.

BAKEHOUSES.

The bakehouses in the District have been periodically visited. One bakehouse was found to be in contravention of Section 15 of the Factory and Workshops Act, 1883, by being in direct communication with a water-closet, and an inlet to a drain being within the bakehouse, the same being remedied upon service of notice.

There are now 25 bakehouses on the register, and these are kept in a satisfactory condition.

MILKSHOPS, DAIRIES, AND COWSHEDS.

The milkshops, dairies and cowsheds have been regularly visited, the majority of which were found to be kept in a cleanly and sanitary condition.

In one case it was found necessary to institute proceedings for non-compliance with Bye-laws under the Milkshops, Dairies and Cowsheds Order of 1885, for neglecting to cleanse and lime-wash a cowshed during the month of May.

Five applications were received for registration as purveyors of milk, which were granted after the premises were duly inspected and approved of.

There are now 49 cowkeepers and purveyors of milk on the register.

EXAMINATION OF MILK.

During the year 92 samples of milk were submitted to Prof. Boyce, of the University College, Liverpool, for bacteriological examination. Of these 59 were obtained from local sources, and 33 from purveyors residing outside the District.

Of the 59 local samples none were tubercular, 13 samples contained the bacillus enteritidis sporogenes and 4 the bacillus coli communis, giving a percentage of 22 for enteritidis sporogenes and 6 for coli communis.

Of the 33 samples obtained from purveyors residing outside the District, one was proved to be tubercular, 12 samples were found to contain the bacillus enteritidis sporogenes, and 3 the bacillus coli communis, showing a percentage of 3 for tubercle, 36 for enteritidis sporogenes, and 9 for coli communis.

The following table will give particulars. Those samples marked with an asterisk denote milk from same source.

Sample No.	Source.	Date.	Presence of any Special Bacillus.	Remarks.
26	Local ...	Jan. 16th.	—	Abscess at seat of Inoculation
27	„ ...	Jan. 17th.	—	—
28	„ ...	„ ...	—	Guinea Pig died Jan. 22
29	„ ...	„ ...	—	—
30	„ ...	„ ...	—	—
31	„ ...	„ ...	—	Guinea Pig died Feb. 14
32	Outside ...	Jan. 23rd.	—	—
33	„ ...	„ ...	Coli Communis ...	—
34	Local ...	„ ...	Enteritidis Sporogenes.	—
35	Outside ...	„ ...	Coli Communis ...	—
36	Local ...	„ ...	Coli Communis ...	—
37	Outside ...	„ ...	—	Guinea Pig died Jan. 30
38	Local ...	Jan. 25th.	—	—
39	„ ...	„ ...	—	—
40	„ ...	„ ...	—	—
41	„ ...	Jan. 26th.	—	Guinea Pig died Jan. 30
42	„ ...	„ ...	—	—
43	„ ...	Feb. 2nd	—	—
44	„ ...	„ ...	—	—
45	„ ...	„ ...	—	—
46	„ ...	„ ...	—	—
47	„ ...	„ ...	—	—
48	„ ...	„ ...	—	—
49	„ ...	„ ...	—	—
50	„ ...	„ ...	—	—
51	„ ...	„ ...	—	—
52	„ ...	„ ...	—	—
53	„ ...	„ ...	—	—
54	„ ...	„ ...	—	—
56	„ ...	„ ...	—	—
57	„ ...	Mar. 8th	—	Guinea Pig died Mar. 27
58	„ ...	„ ...	—	—
59	„ ...	„ ...	—	—
60	„ ...	„ ...	Enteritidis Sporogenes	Guinea Pig died Mar. 27
61	„ ...	„ ...	—	—
*62	„ ...	Mar. 20th	—	Milk Sterile, Boracic Acid present Guinea Pig died Mar. 29
63	„ ...	„ ...	Enteritidis Sporogenes	—
*64	„ ...	„ ...	—	Guinea Pig died April 23
65	Outside ...	„ ...	Enteritidis Sporogenes	—
66	Local ...	„ ...	—	—
67	„ ...	April 11th	Straphylococcus Pyogenes Aurus	—
68	Outside ...	„ ...	—	Guinea Pig died April 21
69	„ ...	„ ...	—	—
70	„ ...	„ ...	Straphylococcus Pyogenes Aurus	—
71	„ ...	„ ...	Straphylococcus Pyogenes Aurus and Albus	—
72	„ ...	May 17th	—	—

Sample No.	Source.	Date.	Presence of any Special Bacillus.	Remarks.
*73	Local ...	May 17th	Coli Communis Straphylococcus Pyogenes	Guinea Pig died June 15
74	Outside...	"	Coli Communis	—
75	Local ...	"	Coli Communis Straphylococcus Pyogenes	Guinea Pig died June 20
76	Outside...	June 1st..	Enteritidis Sporogenes..	
77	Local ...	"	—	Guinea Pig died June 6.
78	" ...	"	Enteritidis Sporogenes..	Guinea Pig died June 13
79	Outside...	"	Enteritidis Sporogenes..	Guinea Pig died June 14
80	Local ...	June 11th	—	
81	" ...	"	Staphylococci	Guinea Pig died July 26
82	Outside...	"	Staphylococci	Guinea Pig died June 17
83	" ...	"		Guinea Pig died June 19
84	" ...	"		Guinea Pig died June 19
85	" ...	"	Coli Communis.....	Milk not inoculated.
86	" ...	June 19th	—	
87	" ...	"	—	
88	" ...	"	Enteritidis Sporogenes..	
89	Local ...	"	—	
90	Outside...	Aug. 8th..	Enteritidis Sporogenes..	
91	Local ...	"	—	
92	Outside...	"	—	
93	" ...	"	Enteritidis Sporogenes..	
94	Local ...	Aug. 15th	—	
95	" ...	"	Enteritidis Sporogenes	
96	Outside...	"	—	
97	Local ...	"	Enteritidis Sporogenes	
98	" ...	"	Enteritidis Sporogenes	Guinea Pig died Aug. 20
99	" ...	"	Enteritidis Sporogenes	
100	Outside...	"	Enteritidis Sporogenes	
101	Local ...	Aug. 16th	—	
102	Outside...	"	Enteritidis Sporogenes	
103	" ...	"	Enteritidis Sporogenes	
104	Local ...	"	Enteritidis Sporogenes	
105	Outside...	"	Enteritidis Sporogenes	Guinea Pig died Sept. 3
106	" ...	Aug. 22nd	Coli Communis	
107	Local ...	"	Enteritidis Sporogenes	
108	" ...	"	Enteritidis Sporogenes	
109	" ...	"	—	
110	Outside...	Aug. 31st	—	
111	" ...	"	—	
112	" ...	"	Enteritidis Sporogenes	
113	Local ...	"	Enteritidis Sporogenes	
114	Outside...	"	Tubercle.....	

UN SOUND FOOD.

One seizure of unsound tinned salmon sold was made under Section 28 of the Public Health Amendment Act, 1890, in conjunction with Section 116 of the Public Health Act, 1875. No proceedings were instituted.

The meat, food, &c., exposed for sale have been regularly inspected.

INFECTIOUS DISEASES.

One hundred and thirty-one cases of infectious disease have been visited and reported on, 114 rooms disinfected after the removal, recovery or death of the patient, which included the stripping of the paper from off the walls of 112 rooms, and the walls washed with a suitable disinfectant.

The Disinfector was brought into requisition 110 times, 1,454 articles of bedding, &c., being disinfected.

NIGHT SOIL CONTRACT AND ASHPITS.

The ashpits and bins in the District have been well attended to by the Contractor, being emptied and disinfected regularly every three months, in addition to special applications, the number of such emptyings being 20,113.

Nineteen galvanised iron bins were provided in lieu of middens and ashpits.

Five premises were provided with ashpit accommodation, and in one instance the same was provided by the Council in default of owner not complying with notice served under Section 36 of the Public Health Act, 1875.

The number of bins are now increasing rapidly, due to the builders providing same in connection with new houses, there being now 225 bins in use.

LEGAL PROCEEDINGS AND RESULTS.

It was found necessary to institute proceedings as follows:—

Nature of Offence.	Case Heard.	Result.
Establishment of an offensive Trade (Fat Boiler) without sanction of Local Authority.	May 26th.	Fined 10s. and costs. Total £2 5s. 6d.
Failing to cleanse and Limewash Cowshed in Contravention of Bye-Laws.	July 10th.	Fined 20s. and costs. Total £2 5s. 6d.
Choked drainage.	August.	Case withdrawn on payment of costs, work done.

SUMMARY OF WORK OF DEPARTMENT.

Number of houses inspected	1142
Number of houses re-inspected... ..	1149
Visits to persons having been in contact with smallpox ...	74
Number of visits to cowsheds and dairies	110
Number of visits to bakehouses	56
Number of visits to workshops... ..	6
Number of times smoke test applied to drainage	212
Samples of milk taken for bacteriological examination ...	92
Number of preliminary notices served	433
Number of legal notices served... ..	32
Number of houses in connection with notices	439
Number of seizures of unsound food	1
Cases of infectious disease reported upon	131
Disinfecting apparatus used	110 times
Bedding, clothing, &c.. disinfected	1454 pieces
Rooms fumigated... ..	114
Paper scraped of walls of rooms	112
Letters in connection with notices	93

DETAILS OF SANITARY IMPROVEMENTS EFFECTED DURING THE YEAR.

DRAINS.

Drains choked—opened and cleansed... ..	40
Drains taken out of cellars	2
Drains removed from under houses	3
Defective drainage, opened and relaid or repaired ...	83
Heads of drains ventilated with 4-inch shafts	19
Intercepting traps fixed	19
Gullies fixed in lieu of defective gullies, masons or D traps	52
Additional gullies fixed	13
New drains laid on notice	24
Man-hole disconnecting chambers built	1

PRIVIES, MIDDENS, AND WATER CLOSETS.

Privies converted into water closets	9
Middens and ashpits filled up to level of yard and made into dry ashpits	12
Foul ashpits abolished	11
Ashpits repaired	7
Galvanized iron bins provided in lieu of middens and ashpits	19
Premises provided with ash accommodation	5
Pan closets removed and washdown closets substituted ...	4
W.C. basins and traps substituted for defective ones ...	42
Premises provided with W.C. accommodation	5
Choked W.C.'s opened and cleansed	19
W.C. apartments lighted and ventilated	5
W.C.'s and outbuildings cleansed and limewashed	11
Separate cisterns for flushing W.C.'s fixed	13
W.C.'s supplied with water	32
Defective flushing apparatus made good	3
Defective connection of W.C.'s made good	53

SOIL PIPES.

Soil pipes removed from centre of house to external walls...	3
Soil Pipes ventilated with 4-inch pipes	26
Joints of soil pipes made gas-tight	73
Soil pipes choked—obstructions removed	12

WASTE PIPES.

Waste pipes and overflow pipes from cisterns disconnected from drains	8
Rain water downspouts disconnected from soil pipes or drains	19
Untrapped and defective waste pipes trapped and made good	68
Sinks re-drained with stoneware pipes	5
Lavatory waste pipes disconnected from bath waste pipes, and spout heads fixed	14
New Salt Glazed Stoneware Sinks fixed	4

FILTHY AND DILAPIDATED PREMISES.

Filthy houses cleansed and lime-washed	3
Filthy yards cleansed	9
Dilapidated buildings repaired	22
Urinals re-constructed or repaired	4
Defective roofs made water-tight	25
Defective spouting made good	32
Offensive rain water cisterns emptied, filled in or cleansed.	9
Houses closed as being unfit for human habitation...	1
Damp house walls rendered dry	8

MISCELLANEOUS.

Surfaces of yards re-paved	91
Nuisances from the improper keeping of animals abated ...	11
Accumulations of manure and other offensive matters removed	12
Offensive nuisances from offal boiling abated	1
Carrying on of offensive businesses stopped	2
Nuisances from over-crowding abated... ..	3
Storage water cisterns cleansed, covered, and ventilated ...	6
Houses supplied with water	26
Smoke nuisance abated	1
Ventilation provided under floors of living rooms	4
Nuisance from yards being used as stables abated	2
Miscellaneous nuisances abated	17

I am, Mr. Chairman and Gentlemen,

Your obedient Servant,

FRANK A. PRATLEY, ASSOC. SAN. INST.,
Sanitary Inspector.

